CASE STUDY

STÜRMSFS AG, GOLDACH:

FIRST PRIVATE 5G NETWORK OPERATING IN SWITZERLAND

Stürmsfs ag is networking its production with strong partners like Nokia, Intel and Datwyler as well as the Swiss IndustryFusion Foundation.

Stürmsfs AG, one of Europe's most modern steel and metal service centres, has started operating the first private 5G network in Switzerland. In collaboration with Nokia, Intel and Datwyler as well as the Federal IndustryFusion Foundation, the company in Goldach on Lake Constance plans to design its production processes even more efficiently in future with Industry 4.0 solutions.

To set up and operate the private 5G network Stürmsfs is working with the communications network equipment provider Nokia among others. Datwyler is responsible for implementing the entire technical infrastructure on site, from the cabling through to the installed antenna technology. Intel supports this development with key technologies for connectivity and IoT Edge Computing.

5G technology will smooth the path of Stürmsfs towards "smart manufacturing": In future all the relevant production assets will be interconnected via this particularly high-performance radio standard. The software used

here is the IndustryFusion open source solution, an easy-to-implement multi-manufacturer networking solution which creates an interoperable link between machinery, factory and Cloud platforms.

In Networking production facilities and mobile assets
The industry-quality private 5G network currently comprises two production facilities on the main Stürmsfs production site in Goldach. In the next phase of the project a wide variety of production facilities will be interconnected via 5G technology and IndustryFusion software – including, for example, a CNC cutting system or a plasma source. Mobile assets can also be easily incorporated in the "smart factory" via wireless technology.

"The networking of production technology, robotics and movable assets as part of campus mobile radio networks is an important recondition for a higher level of automation, productivity increases, and thus ultimately for Industry 4.0. The Nokia Digital Automation Cloud is an in-

dustry-compatible campus solution and platform for digitisation. Stürmsfs has therefore succeeded in taking an important step towards the smart factory," says Patrick Langelaan, Nokia's Vice President for the Enterprise Market in Southern Europe.

On-site data processing in real time

The provision of the Nokia Digital Automation Cloud provides reliable connectivity with high bandwidth and low latency for sensors, machinery, vehicles and other equipment. At the same time this ensures that all data stay in the company and are processed on site in real time, which means that Stürmsfs retains full control of its production know-how.

"Even today a high degree of automation in our production is a key factor in our company's success," says Marcel Meier, Divisional Head of Procurement / Corporate Development and a member of the Management Board at Stürmsfs.

Meier is convinced that efficiency can be substantially boosted, particularly in the areas of production, logistics and working processes, on the basis of the data obtained via networking. The focus is on the integrated intelligent control and networking of machines, logistics and workers. AI-based improvements are on the agenda.

Strong partners

"In Nokia, Intel and Datwyler as well as the IndustryFusion Foundation we have strong partners and are happy to provide them with the opportunity of extensively testing technologies and use cases with us in a real production environment," says Meier.

Nokia's private 5G network hardware and the stuermsfs end-to-end plant server are based on a broad range of Intel networking and edge technologies.

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